



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,541	02/27/2004	Richard J. Melker	MELK-103	7096
23557 7590 05/16/2007 SALIWANCHIK LLOYD & SALIWANCHIK A PROFESSIONAL ASSOCIATION PO BOX 142950 GAINESVILLE, FL 32614-2950			EXAMINER SCHLIENTZ, NATHAN W	
			ART UNIT 1616	PAPER NUMBER
			MAIL DATE 05/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/788,541	Applicant(s) MELKER, RICHARD J.	
	Examiner Nathan W. Schlientz	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 1-15 and 19-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____  |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :5/10/04, 4/29/05, 11/17/05 and 1/5/06.

## **DETAILED ACTION**

The examiner for your application in the USPTO has changed. Examiner Nathan Schlientz can be reached at 571-272-9924.

### ***Status of Claims***

Claims 1-27 are pending. Claims 1-15 and 19-27 have been withdrawn from further consideration as being drawn to a non-elected invention. Therefore, Claims 16-18 are examined herein on the merits for patentability. No claim is allowed at this time.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 16 and 17 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,429,952 (hereinafter Garner et al.).

Garner et al. disclose a liquid agrochemical formulation comprising an herbicide (column 4, lines 40 and 41) and a marker compound (column 5, lines 7-8), wherein the marker compound is present at a concentration range of from 1 ppb to 25 ppm, preferably 100 ppb to 15 ppm, and more preferably 1 ppm to 10 ppm (column 5, lines 47-53).

Attention is directed to the page 15, lines 8-13 of the instant specification where the Applicant's state, "Suitable compositions of the present invention contain not more than 10% weight and preferably from 0.001% (i.e. 10 ppm) to about 2% by weight of the indicator." Therefore, the amount of marker compound used in Garner et al. overlaps the suitable amount of marker compound of the instant invention.

Therefore, the liquid agrochemical formulation of Garner et al. fully anticipates all the limitations of the instant claims (i.e. an herbicidal material and erythrosine in an amount suitable for the instant invention).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 1616

1. Claim 18 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Garner et al.

**Applicant claims:**

The Applicant claims a composition comprising an herbicide and erythrosine powder in an amount sufficient such that the indicator is initially visible in the composition.

***Determination of the scope and content of the prior art***

**(MPEP 2141.01)**

Garner et al. teach a liquid agrochemical formulation comprising an herbicide (column 4, lines 40 and 41) and a marker compound, such as erythrosine (column 5, lines 7-8), wherein the marker compound is present at a concentration range of from 1 ppb to 25 ppm, preferably 100 ppb to 15 ppm, and more preferably 1 ppm to 10 ppm (column 5, lines 47-53).

***Ascertainment of the difference between the prior art and the claims***

**(MPEP 2141.02)**

Garner et al. do not explicitly teach the herbicidal formulation to comprise the visual indicator erythrosine. However, Garner et al. teach that erythrosine is a preferred compound for marking (column 5, lines 7-8).

**Finding of *prima facie* obviousness**

**Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one skilled in the art at the time of the invention to use erythrosine as the visual marker in the liquid agrochemical

Art Unit: 1616

formulation of Garner et al. because Garner et al. teaches erythrosine as a preferred marker.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

2. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,532,029 (hereinafter Fuerst et al.) in view of U.S. Patent No. 4,399,210 (hereinafter Nagano et al.).

**Applicant claims:**

The Applicant claims a composition comprising an herbicide and erythrosine powder in an amount sufficient such that the indicator is initially visible in the composition.

***Determination of the scope and content of the prior art***

**(MPEP 2141.01)**

Fuerst et al. teach a composition comprising an herbicide formulated with a temporary visual indicator (i.e. phenolphthalein) that allows for selective application of the product to plants in order to monitor the application (column 5, lines 20-54). Fuerst et al. further teach that the phenolphthalein is decolorized by addition of a volatile basic compound, wherein the evaporation or dissipation of the basic compound changes the

pH of the composition and results in the color change of the phenolphthalein (column 6, lines 25-37). Fuerst et al. further teaches that color changes of an indicator may be triggered by a variety of physical or chemical reactions, including presence of certain gases, changes in temperature or exposure to UV light (column 7, lines 3-7).

***Ascertainment of the difference between the prior art and the claims***

**(MPEP 2141.02)**

Fuerst et al. do not teach the visual indicator to be erythrosine. However, Nagano et al. teach photosensitive compositions which can provide a visible color change (i.e. coloration to discoloration) upon exposure to light (column 2, lines 25-29), and can provide sufficient contrast even after storage for a long time (column 2, lines 34-38). Nagano et al. further teach the composition comprising phenolphthalein or erythrosine mixed with an o-naphthoquinonediazide compound upon which exposure to light decomposes the o-naphthoquinonediazide effecting a change in the color of the phenolphthalein or erythrosine (column 9, line 67 through column 10, line 9). Therefore, Nagano et al. teach that phenolphthalein and erythrosine are functional equivalents for visually detecting a change in color upon exposure to light in the presence of an o-naphthoquinonediazide.

**Finding of *prima facie* obviousness**

**Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one skilled in the art at the time of the invention to substitute erythrosine in the place of phenolphthalein and add an o-naphthoquinonediazide to the composition of Fuerst et al. in order to provide a



Art Unit: 1616

composition that can be mixed with an herbicide and has a visible color upon application, but sustained exposure to light decomposes the o-naphthoquinonediazide and thus changes the color of the erythrosine indicator to decolorize the composition and provides sufficient contrast even after storage for a long time, as reasonably taught by Nagano et al.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### ***Response to Arguments***

Applicant's Remarks filed 14 February 2007 have been fully considered but they are not persuasive.

The Applicant's argue throughout pages 7-10 of the aforementioned Remarks that the compositions of Garner et al. comprise a marker that should not be visually detectable, whereas the instant invention requires that the temporary visual indicator be initially visible in the composition. The Applicant's argue that the concentrations of the marker in Garner et al. are so low that they are not visually detectable.

However, the examiner respectfully directs attention to page 15, lines 8-13 of the instant specification where the Applicant's clearly state:

"When preparing customized materials for application to a surface, a sufficient amount of temporary visual indicator to provide an adequate visual signal is mixed with a selected material. In a preferred embodiment, the quantity of temporary visual indicator mixed

Art Unit: 1616

with the selected material does not affect the nature of the material. Suitable compositions of the present invention contain not more than 10% weight and preferably from 0.001% (i.e. 10 ppm) to about 2% by weight of the indicator."

Thus, the marker compound of Garner et al. is the same as the temporary visual indicator of the instant claims (i.e. erythrosine) and the suitable concentration ranges are overlapping. Therefore, the compositions of Garner et al. meet all the limitations of the instant claims.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan W. Schlientz whose telephone number is 571-272-9924. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathan W. Schlientz, Ph.D.  
Patent Examiner  
Technology Center 1600  
Group Art Unit 1616

  
Johann Richter, Ph.D., Esq.  
Supervisory Patent Examiner  
Technology Center 1600  
Group Art Unit 1616